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A Clinical Study to Evaluate the Efficacy of *Baladi Yapana Basti* in *Pakshaghata*

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ABSTRACT

Basti chikitsa is considered to be the *pradhanathama chikitsa*¹ as it does the *brihmana* of the *shareera* from *keshagra* to *nakhagra*² thereby alleviating the diseases produced by *vata dosha* in any part of the body³. *Basti* is the best line of treatment for a *durbhala* and *avirechya* patient suffering from *vatavyadhi*⁴. *Yapanabasti*'s are suitable for administration in all the *ritus* and both in *swastha* and *aatura purushas* wherein it pacifies all types of diseases and bestows strength⁵. *Baladi yapana basti* explained by *Acharya Charaka* is used in the treatment of *pakshaghata* by virtue of its *sadyobalajanana* and *rasayana* qualities⁶. Stroke or CVA is defined as the rapid onset of focal neurological deficit, resulting from diseases of the cerebral vasculature and its contents. It represents third most common cause of death. Survey studies show approximately 60% strokes are due to ischemic, 20% of cerebral infraction and another 20% of are brain haemorrhage. Further, community surveys in India revealed that the prevalence rate of stroke is in range of 200/100,000 persons, and this accounts for nearly 1.5% of urban hospital admissions⁷. CVA may be compared to *pakshaghata*⁸ wherein in greatly aggravated *vata*, invades the *shareera dhamani*'s causing *sandhibandha moksha* and paralysing one side of the body causing *cheshtahani* of the side with pain and loss of speech. In this condition the *yapana basti* which is *sadyobalajanana* and *rasayana* is beneficial. By keeping all these points *baladi yapana basti* has been selected for the present study which was an open clinical study with pre-test and post-test design wherein 25 patients diagnosed as *Pakshaghata* of either sex were selected. The results obtained substantiates the action of *Baladi Yapana Basti* as *sadyobalajanana*, *vatahara*, and *rasayana*.

KEYWORDS

Baladi Yapana Basti, *Pakshaghata*, CVA



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INTRODUCTION

In *Ayurveda*, disease is treated by two methods - *Sodhana* (purification of dosha by specific procedures) and *Shamana* (palliative) treatment. *Sodhana* eliminates excessively vitiated *doshas* out of the body and maintains homeostasis among *doshas*. *Shodhana* therapy not only cures the disease but also eliminates the causative factors whereas *shamana* does palliation of vitiated *doshas* providing symptomatic relief. *Shodhana* of body is done by *Panchakarma* therapy. *Basti* is the most important constituent of the *Panchakarma* due to its multiple effects. *Basti* eradicates morbid *vata* from the root along with other *doshas*. Since the *Basti* has the capacity to eradicate most of diseases occurring in *Sakha*, *Kostha* & *Marma Sthanas*, it is referred to as 'Ardha Chikitsa' or 'Sampoorna Chikitsa' by various Acharyas⁹.

The word "Vatavyadhi" has been composed from the two words *Vata* and *Vyadhi*. *Vata* is considered to be the most powerful and active amongst the three *Doshas*. It gives support to the body & controls all the activities of body. It motivates & controls all other *Doshas*, *Dhatu*s & *Malas*¹⁰. *Vata* has predominant influence on the three principle routes of diseases namely as *Sakha*, *Kostha*

& *Marma-Asthi-Sandhi*¹¹. Although the entire body is the dwelling of three *Doshas* – *Vata*, *Pitta* and *Kapha*, but the prime importance has been given to *Vata* due to its capacity to move in the entire body without help of other two *Doshas*. *Vayu* is the main factor, which is responsible for the healthy and diseased status of the individual. Due to the higher efficacy, *Vata* can produce eighty types of defects and derangements in the body (*nanatmajavikaras*). The word "Vyadhi" i.e. Disorder is suggestive of circumstances in which body and mind both are in distress. In this way the collective meaning of *Vatavyadhi* indicates the specific disorders occurring due to the *Vatadosha*.

Pakshaghata is a most distressing disease among *vata nanatmaja vyadhis*⁸. The pathological phenomena of *vata* playing central role in the manifestation of *Pakshaghata* are *Suddha vata prakopa*, *anyadosha Samsirsta vata prakopa* and *dhatu kshayajanya vata prakopa*⁸. Akin to *Pakshaghata*, Hemiplegia is also caused by a wide spectrum of disease processes like vascular disorders, infective disorders of brain tissue, tumors, trauma etc. Among these, vascular accident or stroke is the commonest cause of hemiplegia classified as either hemorrhagic or ischemic, strokes typically manifest with the sudden onset of focal neurologic deficits such as weakness,



sensory deficit or difficulties with language. Whereas diagnostic part of *Pakshaghata* (hemiplegia) is strong in modern science, no complete cure is available till today. Hence substantial reasoning for complete treatment of hemiplegia by *Ayurveda* has to be established.

In the context of *vatavyadhi*, *Acharyas* have explained *Basti* as the best line of treatment in a *durbala* and *avirechya* patient suffering from *Vatavyadhi*⁴. Therefore, the present study has been selected to see the *vatahara*, *sadhyo bala janana* and *rasayana* effect of *Baladi Yapana Basti* in patients suffering with *Pakshaghata*.

OBJECTIVE OF THE STUDY

- To evaluate the efficacy of *Baladi Yapana Basti* in *Pakshaghata*

MATERIALS AND METHODS

- Source of Data

Patients diagnosed as *Pakshaghata* were taken for the study from the IPD of S.DM.Ayurveda hospital, Udupi .

Method of Collection of Data

It is a clinical study to evaluate the efficacy of *Baladi Yapana Basti* in *Pakshaghata* disease, wherein patients of either gender were selected. A detailed proforma was prepared considering all points pertaining to history, signs, symptoms and

examinations as mentioned in our classics and allied sciences to confirm the diagnosis.

Inclusion Criteria

- Patients fulfilling the criteria of diagnosis of *Pakshaghata*.
- Patients who are fit for *Nirooha Basti*

Exclusion Criteria

- Patients suffering from *Pakshaghata* produced as a result of injury, infectious diseases and malignancies.
- Patients who are unfit for *Nirooha Basti*.

Investigations

- No specific laboratory investigations are needed for diagnosis.
- Routine blood investigations.
- CT – scan, MRI [if needed for differential diagnosis]

Study Design

This is an open clinical study with pre-test and post-test design wherein 25 patients diagnosed as *Pakshaghata* of either sex were selected. All patients fulfilling the inclusion criteria were subjected to *Baladi Yapana Basti*.

Duration of Study

- Duration of treatment: 08 days
- Duration of follow up: 16 days
- Total duration of study: 24 days

INTERVENTION

- *Poorva karma*

1) Preparation of the medicine



- Ingredients of *Baladi Yapana Basti*¹²

(ref: charakasamhita siddhi sthana 12/16(5))

Madhu – 80ml

Sauvarchala lavana – 5gms

Gritha – 120ml

Kalka dravyas – 40gms

(*madhuka, madanaphala*)

Kashaya (boiled in milk) – 240ml

(*bala, atibala, vidhari, shaliparni, prishniparni, brihati, kantakari, darbhamaoola, parushaka, kashmarya, bilwaphala, yava*)

2) Preparation for *abhyanga* and *swedana*

Sthanika abhyanga : with *ksheerabalataila*

Sthanika swedana: *nadee sweda* with *balamoola qwatha*

- **Pradhana karma**

In a **Yoga Basti course** (M N M N M N M M)

Baladi Yapana Basti will be given in a dose of 480 ml on 2nd 4th 6th morning (3 Nirooha Basti in total) in empty stomach. Along with this 5 *Matra Basti* with *Dhanwanthara taila* in a dose of 30ml on 1st, 3rd, 5th, 7th, 8th day is given in the afternoon immediately after food.

- **Paschat karma**

✓ Avoidance of Astamaha doshakara bhavas.

✓ Ushna, laghu, anabhisyandhibhojana.

✓ Pariharakala for 16 days.

ASSESSMENT CRITERIA

Samyak lakshanas were assessed daily after the administration of *Baladi Yapana Basti*.

The results were assessed on the basis of signs and symptoms of *Pakshaghata* before and after treatment i.e, on 8th and 24th day after administration of *Basti*.

Subjective Parameters

- Symptoms of *Pakshaghata*¹³
- Symptoms of *samyak niruda*¹⁴

Objective Parameters

- Neurological mapping¹⁵

OBSERVATIONS

- No. of patients registered for the study – 25
- No. of patients completed the study – 25
- No. of dropout – 0

DISCUSSION

Pakshaghata is a *Kastasadhya vyadhi* because all the *Vatavyadhis* are difficult to cure and they are said as *Mahagada*. *Madhyama Rogamarga*, situation in *marma, sira, snayu, kandara, dhatukshaya* and *vridhdhavastha* also makes it *Kastasadhya*.

The main symptoms of *Pakshaghata* are *cheshta nivriti* in the *dakshina/vamapaksha, vakstambha, ruja, achethana, sandhi bandha vimoksha, hasta pada sankocha* etc. which are mainly caused due to the *vata dosha*¹³. According



to *Sushruta* one can treat *Vataja*, *Pittaja*, *Kaphaja*, and *Raktaja* disorders either alone or when they produces diseases in combination with the help of *Basti*¹⁶. Further *Sushruta* mentioned multidimensional therapeutic effect of *Basti*, which can be achieved by using different drugs in combinations¹⁷. Here *Baladi Yapana Basti* was selected as it has *Vatahara*, *Sadhyobalajanana* and *Rasayana* properties¹⁸.

In this study, maximum number (36%) of the patients belong to the age group of 61-70yrs, followed by 32% belonging to the age group of 51-60yrs .This indicates that, Pakshaghata is dominant in older age

group. From the point of Ayurveda, *Parihani Avastha* of *vayah* mentioned by Acharya *Sushruta* (40-70years) is the stage which is dominated by Degeneration & also this is the phase of *Vatakaala*.In this study, maximum number of the patients (72%) were males in comparison with the females (28%). This supports the theory which states that males are more prone to stroke than females. Majority of the patients (48%) were labourers, followed by (28%) housewives and (8%) agriculturists who have more physical strain which corresponds to the etiology of *Pakshaghata*(Table 1,2).

Table 1 Objective parameters

Criteria	Group With Maximum %	Group With Minimum %
Age	61-70 Yrs(36%)	81-90 Yrs(04%)
Sex	Male (72%)	Female (28%)
Religion	Hindu (92%)	Christian & Muslim (04% Each)
Educational Status	Primary & Middle (32% Each)	Graduation (04%)
Marital Status	Married(72%)	Unmarried(08%)
Socio Economic Status	Middle Class(44%)	Upper Middle Class(24%)
Occupation	Labour(48%)	Service(04%)
Desha	Anoopa(76%)	Sadharana(08%)
Diet	Mixed(92%)	Vegetarian(08%)
Addictions	No Addiction(48%)	Alcohol, Smoking & Tobacco (04% Each)
Associated Diseases	Nothing Specific(36%)	Dm(08%)

Table 2 Highlights of Dashavidha Pareeksha

<i>Prakruti</i>	<i>Vata-Pitta</i> (44%)	<i>Vata-Kapha</i> (24%)
<i>Vayah</i>	<i>Vridha</i> (52%)	<i>Baala</i> (00%)
<i>Satwa</i>	<i>Madhyama</i> (60%)	<i>Pravara</i> (04%)
<i>Samhanana</i>	<i>Madhyama</i> (76%)	<i>Pravara</i> (04%)
<i>Sathmya</i>	<i>Pravara</i> (88%)	<i>Madhyama</i> (12%)
<i>Saara</i>	<i>Madhyama</i> (56%)	<i>Pravara</i> (00%)
<i>Aharashakti-Purvakaleena</i>	<i>Pravara</i> (68%)	<i>Avara</i> (08%)
<i>Aharashakti-Adhyatana</i>	<i>Pravara</i> (44%)	<i>Madhyama&Avara</i> (28% Each)
<i>Vyayama Shakti-Purvakaleena</i>	<i>Pravara</i> (64%)	<i>Avara</i> (04%)
<i>Vyayamashakti-Adhyatana</i>	<i>Avara</i> (96%)	<i>Pravara</i> (00%)



Side Affected	Left(64%)	Right(36%)
The statistical analysis of Power with respect to movement of Upper Limb - Shoulder, Elbow, Wrist, Lower Limb - Hip, Knee and Ankle ,Sitting from lying down posture & Standing from sitting posture before treatment, after treatment and after follow up in the group, revealed significant changes. Mean score of above said parameters was increased before treatment,		after treatment and after follow up. i.e. statistically extremely significant(Table 3). The statistical analysis of Finger movement & Toe movement, Loss of speech, Hand grip power before treatment, after treatment and follow up in the group, revealed apparent changes. Mean score of above said parameters was increased before treatment, after treatment and after follow up. i.e. statistically significant(Table 4).

Table 3 Results of the therapy

Parameter	Mean value			Percentage	
	BT	AT	FU	AT	FU
power-UL- Shoulder	1.20	2.00	2.80	66.67%	133.33%
power-UL- Elbow	1.56	2.84	3.04	82.05%	94.87%
power-UL- Wrist	1.32	2.36	3.00	78.78%	127.27%
power-LL- Hip	1.52	2.72	3.08	78.94%	102.63%
power-LL- Knee	1.48	2.68	3.04	81.08%	105.40%
power-LL- Ankle	1.28	2.04	2.96	59.37%	131.25%
Sitting From Lying Down	0.84	1.60	1.72	90.47%	109.52%

Significant results after the treatment & after the follow up was observed in the following parameters:

Table 4 Results of the therapy

Parameter	Mean value			percentage		P value
	BT	AT	FU	AT	FU	
Power-UL- Phalanges	1.48	2.04	2.84	37.83%	91.89%	=0.0018
Power-LL- Phalanges	1.32	1.92	2.92	45.45%	121.21%	=0.0016
Altered speech	2.68	2.96	3.04	104.47%	134.32%	=0.0159
Hand Grip	0.48	0.80	1.24	66.66%	158.33%	=0.0042

The statistical analysis of Reflexes revealed no apparent changes. Mean score of above said parameters remained almost same before treatment, after treatment and after follow up. i.e. statistically not significant.

The benefits seen immediately after Baladi Yapana Basti was maintained (increased) even after the completion of follow up

period. This may be the reason that Acharyas gave much importance to Dwiguna parihara kala. Also it shows that the benefit of Basti is long standing one.

Number of evacuations

Number of evacuations varied from patient to patient. In *Niruha Basti* maximum number of evacuations observed was 5



times & minimum of 01 time. In *Matra Basti* maximum number of evacuations was observed was 4 times & minimum number of evacuation is one.

Retention Time

Maximum duration of retention of *Niruha Basti* was for 45 minutes and minimum duration was for 1 minute. Maximum time of retention of *Matra Basti* was for 16 hours and minimum time was for 15 minutes.

CONCLUSION

Power with respect to gross movement of Upper Limb & Lower Limb showed statistically extremely significant results. Altered speech, finger movement of hand and toe showed statistically significant results. The results obtained substantiates the action of *Baladi Yapana Basti* as *sadyobalajanana, vatahara, and rasayana*.



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